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ABSTRACT

There are compelling reasons for integrating phonics into the adult English-as-a-Second-Language (ESL) curriculum. The adult ESL student has the analytical capability to understand phoneme-grapheme relationships and can be taught to use any transferable native-language literacy skills in English spelling. In this essay, the potential of phonics instruction in the teaching of reading and spelling to ESL students with little formal education in the native language or English is considered. The discussion begins with an analysis of the features of English orthography and research on whether English orthography can be taught. A rationale for teaching phonics is outlined, focusing on its utility for native Spanish-speaking immigrants to the United States. A classroom research project using phonics and spelling instruction in an adult intermediate-level ESL literacy class is then reported. Basic English spelling rules are reviewed, and a three-step approach to teaching them (phoneme-grapheme relationships; irregular verb tests; and guided compositions) is described. Results indicate the approach was useful in teaching students to spell and in encouraging writing. (Adjunct ERIC Clearinghouse on Literacy Education) (MSE)

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Phonics in ESL Literacy Instruction: Functional or Not?

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| Abstract | English Orthography | Can English Orthography Be Taught? | A Rationale for Teaching Phonics | Phonics and Spelling Instruction in theAdult Education Intermediate ESL Class | English Spelling Rules | Conclusions | Footnotes |

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Abstract

Phonics has not been emphasized in adult English as a Second Language (ESL) literacy instruction in the late twentieth century, yet the single most important theoretical problem underlying the practical problem of teaching initial English literacy is understanding how the writing system relates to the spoken language. There are compelling reasons for integrating phonics into the adult education ESL curriculum, as has been done in American primary school education. As English spelling is morphophonemic, understanding how phonemes are represented by single letters as

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well as spelling patterns can assist in the development of basic ESL literacy. The adult ESL student has the analytical capability to understand phoneme-grapheme relationships and can be taught how to utilize any transferable L1 literacy skills in the acquisition of English spelling. Results of a teacher-research project incorporating phonics into adult education intermediate ESL instruction suggest that the question should no longer be whether to teach phonics as a part of adult ESL instruction, but how this might be done most effectively.

While much is written about the need for literacy and particularly functional literacy, these terms are rarely defined from a linguistic perspective. Bloomfield wrote more than sixty years ago that "Writing is not language, but merely a way of recording language by means of visible marks" (1933:21). Whether one agrees with this definition or not, "visible marks" are a good way to describe that mechanical aspect of literacy needed in order to transfer the phonemes one hears into "marks" or graphemes on the page, or conversely in reading to understand the grapheme-phoneme relationship. This ability to "break the code" is the basis of all literacy. The specific focus of this paper will be to examine the possible value of phonics instruction in the teaching of reading and spelling to adult ESL students with little formal education in L1 and L2, such as unskilled Mexican laborers immigrating to Southern California.

An understanding of phonics has little value in and of itself, for the ability to read or write a single word such as cat only has value when that word is part of a text - or, to use Widdowson's terminology, when the lexical item gains indexical meaning in discourse (1990). However, the ability to read and write words forms the basis for functional literacy as well as higher literacies, which incorporate creative and critical thinking.

The receptive skills needed to read words and the productive skills needed to spell words cannot be taken for granted. Reading and writing are both dependent upon an individual's ability to form and/or recognize letters of the alphabet and to understand how they are grouped together to make words. In some languages, such as Spanish, spelling evidences a close phoneme-grapheme

relationship, which is understood even by limited literacy adults such as Mexican ESL students. However, the systematicity of English spelling must be considered. Views, such as those of Zachrisson, that English spelling is "antiquated, inconsistent, and illogical" (1930:10) are now generally discredited. As C. Chomsky observes, "the relation of conventional English orthography to the sound structure of the language . . . is much closer than ordinarily assumed" (C. Chomsky: 1970:287). English spelling is now considered to be morphophonemic (Stubbs 1980, Bochner 1993). Teacher-research done with an adult education intermediate ESL literacy class of Mexican immigrants will be used to show how such students have the analytic capability to utilize their basic understanding of the Spanish phoneme-grapheme relationships to gain an understanding of the underlying morphophonemic structure of English. While understanding phoneme-grapheme relationships may be easier if L1 is an alphabetic language, it will be posited that there is sufficient systematicity in English to provide a rationale for phonics and the explicit instruction of spelling.

English Orthography

Print conveys meaning through a very complex process. Probably the most important single fact about this activity is that the purpose of the reading and/or writing act is inextricably interwoven in its technique so that the ends are an integral part of the means. However, according to Stubbs (1980:44), the single most important theoretical problem underlying the practical problem of teaching initial English literacy is understanding how the writing system relates to the spoken language.

All alphabetic writing systems are based upon the principles of phoneme-grapheme correspondences in which there is ideally one letter (or pair or triplet of letters). For example, Spanish approaches this one-to-one phoneme-grapheme relationship quite closely. English correspondences are not so regular, but one computer corpus analysis of 17,000 words indicates that 84% of English words are spelled according to regular patterns (Hanna et al. 1971). Other researchers

estimate 75% regularity (Crystal 1987:214). The spelling of only about 3% of English words is so unpredictable that these must be learned totally by rote (Hanna et al. 1971). However, since some 100 of these irregular spellings are among the most frequently used words in the language, this suggests English orthography is more irregular than it actually is.

The apparent irregularities in English spelling can be viewed from a historical perspective. English spelling has evolved over time and is an amalgam of different traditions. In the Anglo-Saxon Period an alphabet of 27 graphemes had to represent nearly 40 phonemes, so that many sounds had to be signaled by combinations of letters. After the Norman Conquest, French scribes and early printers introduced their own conventions and norms. The fifteen century writing system did not keep pace with the sound changes affecting the language and the Great Vowel Shift is the main reason for the diversity of vowel spellings. Also some letters sounded in Anglo-Saxon became silent. In the next century it became fashionable to make English spelling reflect Latin or Greek etymology; later many additional loan words entered English from other European languages and retained aspects of their original spelling. While the resultant modern English system is basically phonemic, it has been estimated that there are phonemic alternatives for a grapheme (3.5 sounds per letter) and far more graphemic alternatives for a phoneme (13.7 spellings per sound) (Dewey 1971). Such background information suggests why English spelling is not as regular as that of other languages. Nevertheless, an understanding of the underlying principles of English spelling is basic to the acquisition of literacy.

The major features of English phoneme-grapheme correspondences will be considered, first with reference to consonants, and then to vowels. Most English consonants exhibit a quite direct grapheme-phoneme relationship, if one does not denote more precise allophonic distinctions. Phonemic variations are usually caused by adjoining letters and follow regular patterns. There is greater irregularity in phoneme-grapheme correspondences with vowels, which is unfortunate in so far as vowels are the key to syllable perception. The primary patterns with long and short vowel sounds show a high degree of consistency (Hanna et al. 1971:214). Other patterns (such as

diphthongs and vowel alternations caused by the consonant r) occur less frequently but have regular formation. Vowels not only have more phonemic alternatives for a grapheme, but there are often numerous graphemic alternatives of a phoneme, caused in great part by the historical incorporation of different spelling patterns. However, in spite of possible variations, no English word is ever spelled in such a way as to give no information about its pronunciation. Even an orthographic unit such as gh is quite restricted in its possible pronunciation and may be quite unambiguous in certain contexts.

In summary, the overriding principle discussed so far indicates that the spelling of many English words is phonemic. Particularly monosyllabic words (such as sat, set, sit) are regular in the sense that the pronunciation is predictable from the spelling alone, and, conversely, the spelling is predictable from the pronunciation.

However, English spelling is not just a system which relates sound units to letters and it is inadequate if considered in phonemic terms alone. Rather English is morphophonemic, for the orthographic units are not only related to phonemes, but also to morphemes, and thus to grammatical and semantic units:

> The complexities of English spelling cannot be accounted for completely on the assumption that the system is phonemic with irregularities. . . . It is necessary to assume that the system is partly phonemic and partly morphemic. (Hockett 1958:542)

This idea is further developed by N. Chomsky and Halle in The Sound Pattern of English (1968), where they demonstrate that the relationship between conventional English orthography and the sound structure of the language is much closer than is ordinarily assumed. The authors contend that while the conventional spelling of English words does not always correspond to the surface phonetic form which words assume in English, it often corresponds more closely with the underlying abstract level of representation within the sound system of the language.

C. Chomsky (1970) further clarifies this notion of abstract underlying form, showing its place and function within the grammar of English and explaining its relation to spoken language. She contends that the grapheme-phoneme relation of vowels and consonants as discussed so far could be termed lexical spelling, for it involves a consideration of pronunciation, phonetic transcription, or the type of broad phonetic transcription often called phonemic transcription. While this approach is simple and direct, any attempt to incorporate a spelling system so closely tied to the pronunciation of English immediately becomes problematic when one attempts to incorporate it into the grammar. For example, English words undergo pronunciation shifts when suffixes are added. In the -s endings of the plurals of nouns and possessives ('s) as well as the third person singular present tense of verbs, both grammatical categories retain the graphemic shape of the morpheme -(e)s, despite the existence of the phonemically different allomorphs /-s/, /-z/, /-iz/, which are applied following well-known morphemic rules of English. Similarly the English preterit of regular verbs is indicated by the written suffixal morpheme -ed, although the spoken allomorphs are /-t/, /-d/, /-id/.

However, if in either case one sought phonemically motivated consistency, as has been advocated by some projects on English spelling reform, morphological information would be lost. Would it be better to write cats, dogz, and foxez instead of cats, dogs, and foxes - or bakt, raind, and wantid instead of baked, rained, and wanted? Not according to Vachek, who contends:

> . . . it is only too obvious that such replacement has to be evaluated as a retrograde step, because it renders the morphological information less clear than in the present, traditional way of writing. (1973:23)

While an individual learning to spell English might be helped by phoneme-grapheme consistency, the more literate individual is aided by the retention of the grammatical categories.

Since English spelling is not merely phonetic but has rules for converting the pronunciation of grammatically related items, it is possible to retain lexical spelling similarities. This is highly desirable for the underlying reality of the language, masked by surface phonetic features, remains visible in spelling.

The lexical spelling thus acquires the character of an abstract representation, from which the actual phonetic realizations are predictable according to general rules of pronunciation. (C. Chomsky 1970:289)

In the course of oral language acquisition, the native speaker internalizes the rules of the phonological system (C. Chomsky 1970:290-91). Words that appear to have irregular spelling according to phoneme-grapheme rules are governed by different principles. Sometimes when suffixes are added to words, the stress shifts to another syllable as in PHOtograph > phoTOGraphy. When suffixes are added, some graphemes that were silent in the root become audible as in sign > siGnify. Consonant alternations can also occur as in critical > criticize.

In addition to vowel and consonant alterations, other surface phonetic variations include stress placement and vowel reduction, which are not reflected in the lexical spelling of words, but operate predictably according to rule. The movement of the stressed syllable in PHOtograph, photoGRAPHic, and phoTOGraphy is not expressed at a lexical level, but is a regular variation seen in similar words such as TELegraph, teleGRAPHic, and teLEGraphy (N. Chomsky and Halle 1968:11-12).

Surface phonetic variations are regular within the English language system. While they may obscure similarities between lexical items in spoken language, they are not evidenced in the orthography. Rather, English spelling represents the meaning-bearing item or root directly without irrelevant phonetic detail. In phonetic transcription two words might look different; but words that on the lexical level are the same, look the same. If one knows a language, the differences between

medical > medicine are quite different from kill > sill, for in the latter case the phonetic change from [k] to [s] creates a new lexical item. But in medical > medicine there is only a phonetic change, while the lexical item as well as the lexical spelling and orthography remain the same.

Therefore the morphophonemic nature of English spelling allows visual identity to exist between items that mean the same, while words that mean different things can be visually distinguished. The predominantly visual English spelling system assumes that its users have native competence in the phonology and morphology of the language. In this sense reading is dependent upon knowledge of the language, but the written form is not just a reflection of speech, but in some respects acts as an independent medium with its own characteristics.

In summary, English spelling is mainly phonemic for the phonemes are represented by single letters, as well as spelling patterns. In addition, English spelling retains information about the relationships between words, as evidenced by research into the relationship between spelling and transformational grammar (Luelsdorff 1987, Bochner 1993). English orthography can therefore not be seen as a single unified system, for it is based upon several different organizing principles and subsets of rules, which tend to be rather consistent in themselves. English spelling is problematic because one does not know which principles apply to the spelling of a given word. While English orthography is fairly convenient for fluent adult readers, it is not optimal for young native speaking (NS) children learning to read or for ESL/EFL students (Stubbs 1980: 45).

Can English Orthography Be Taught?

On both sides of the Atlantic ongoing research is being done into how children learn to read and write, as well as on what the best pedagogical methods might be. However, review articles of recent significant research in adult ESL/EFL instruction in reading and writing (Grabe 1989, 1991; Péry-Woodley 1991; Raimes 1991) make virtually no mention of phonics and/or spelling in the

acquisition of English orthography. The authors of the above articles might claim that they were focusing on higher literacy ESL/EFL students, for whom such mechanical aspects of literacy are not as problematic as for the much larger group of immigrant ESL students in adult education programs, such as the target population of Mexican immigrants.

Since the acquisition of English orthography is fundamental to the acquisition of basic literacy by all NS/NNS students studying alphabetic languages, a fundamental question must be raised: "Can English spelling be taught?" There are three possible answers: It cannot be, because English spelling is too irregular. It could be, but no explicit instruction is necessary for people will learn at their own pace through exposure to the printed word. Or it should be, because an explicit awareness of the morphophonemic structure allows for a conscious acquisition of spelling. As each of these positions has pedagogical implications, the validity of each position will be considered. Little research has been published on teaching English orthography to ESL/EFL adults, so references must be made to available studies done on native speaking (NS) children.

Proponents of the first position hold that English spelling is so unsystematic so as to make explicit instruction impossible. Perhaps these individuals have only examined English sound-spelling relationships and consequently believe that the phoneme-grapheme relationships are so weak so as to make explicit instruction questionable. However, this position places too great an emphasis upon lexical spelling and suggests an inadequate understanding of the principles of what has been called lexical relatedness morphology (Bochner 1993).

The second view is that English orthography exhibits some systematicity, but that students will pick up English spelling at their own pace through exposure to written text and personal attempts at writing. A similar position is held by some primary school educators who advocate the whole word approach. They claim that when individuals are learning to read, they make more rapid progress if they identify whole words at a glance the way fluent readers seem to do because skilled reading is dependent upon fast, accurate word identification (Perfetti and Lesgold 1979, Perfetti

1985). Whole word or whole language proponents also claim children learn more if captivated by what they are reading and writing, even if invented spellings are initially used. Students taught by this approach are theoretically not stultified by explicit drill and kill spelling instruction and are not bored by primary readers in which vocabulary selection (based upon close phoneme-grapheme correspondences) results in sentences such as "See Spot run" (Smith 1965, Goodman et al. 1989). A basic premise of the whole word approach is that if children read enough interesting text, they will with time not only gain a large sight vocabulary, but also come to see grapheme-phoneme relationships and thus learn how to spell as through osmosis. This approach assumes that children live in a print-rich environment, and it is estimated that the average eleven-year old American school child encounters more than one million running words of text a year (Nagy et al. 1985, 1987).

Proponents of the "osmosis" approach for adults may similarly believe that exposure to a volume of print will over time enable the non-native speaking (NNS) students in academic institutions to spell English correctly. A related assumption may be that students are mature enough to understand the necessity of memorizing the spelling of any words they do not pick up as sight vocabulary. Interviews with NNS research students at the Institute of Education at the University of London revealed that no one had received formal instruction in English orthography, so these individuals have managed to learn English by the osmosis approach, which adequately served their needs. However, this is not proof that this is the best method, for they might have learned better using another technique and, furthermore, the method may not have ensured adequate literacy development for other students to succeed in their studies at home and ultimately to study abroad. There is also no published research indicating the efficacy of this approach with adult education students who as unskilled laborers are exposed to print only a few hours a week in the classroom.

While there is no adequate research on ESL/EFL adults taught by the whole word or osmosis approach, research has been done with NS children to ascertain the efficacy of the whole word

approach versus the phonics approach, but it is difficult to compare data across studies (Carbo 1988, Chall 1990, Adams 1990).

The third view holds that English spelling not only can but should be taught for the learner to understand that English spelling works in different ways (Stubbs 1980). Certain words are best learned as sight vocabulary including the most common of the 100 highly irregular words. Letters do correspond to sounds some of the time so that phonics instruction is very helpful in mastering the numerous English words whose spelling is based upon grapheme-phoneme correspondences. However, the systematicity of English spelling is not only dependent upon segmental sound spelling but also upon the underlying morphological structure.

A mastery of the alphabet is basic to reading because every aspect of reading is dependent upon speech and accuracy of letter perception. The names of the alphabet letters (and particularly vowels) also provide phonological clues. Although there is not a strict phoneme-grapheme correspondence in English as in some languages (such as Spanish) the skillful reader understands that English variations are not totally arbitrary but follow general rules by which the abstract underlying forms are converted into phonetic realizations. The individual understands that the systematicity of word formation extends beyond the representation of vowel phonemes to the groupings of vowel and/or consonant letters. The reading process is driven by the visual recognition of individual letters in familiar ordered sequence and is critically supported by the translation of those strings of letters into their phonological correspondences. Distinctive letter sequences provide visual clue strategies which in some instances are more helpful than phoneme-grapheme strategies.

Skilled spellers can visually recognize spelling patterns and link them to their phonological translations effortlessly and accurately. Spelling-sound regularities are also seen in what are known as word families (bright, fight, might). NS Children (as well as many NNS immigrant workers) have a larger spoken than written vocabulary. By utilizing spelling-sound regularities in word families, children can often transfer information correctly from the known spelling of a word to a

phonetically similar one, thus quickly increasing the number of words they can spell. Research indicates that good spellers usually spell real words correctly regardless of their grapheme-phoneme irregularities. They will spell pseudo-words in accordance with patterns used in similarly sounded real words, such as in length - wength. Visual strategies are also used with irregular words, for when a phonological strategy does not work, people sometimes write down alternative spellings to see what looks right.

With children, an early phonics emphasis appears to have less influence on comprehension as the years pass, probably because of the increasing emphasis upon the importance of schematic knowledge of the topic, vocabulary, and reasoning ability. Such studies have led some researchers to conclude that phonics facilitates word identification, which is a necessary factor in reading with good comprehension, but not the only one (Osborn et al. 1985:37-8).

However, comprehensive analysis of more than thirty years of research into American reading instruction of NS children indicates the importance of including phonics in any literacy instruction (Chall 1990, Adams 1990). Lack of research into this approach for the limited literacy adult suggests to me that phonics generalizations are not incorporated in adult ESL instruction because teachers cannot articulate basic phonics generalizations. A test given to 83 prospective and practicing NS/NNS teachers of ESL/EFL bears out my hypothesis.1

In addition to phonics generalizations, the student must also understand the relation between the written symbol and the abstract lexical spelling of words, because English alphabet letter may not only represent sounds, but also segments of lexical spelling. A conscious awareness of the English phonological rule system enables a student to relate lexical segments to sounds in a systematic fashion. However, he cannot proceed on the assumption that English orthography is phonetically valid for sometimes written symbols must be interpreted according to lexical spellings. With lexical relatedness spelling, the reader does not need to abstract away unnecessary phonetic detail which would be present if the English spelling system were phonetically based.

In summary, proponents of explicit instruction in orthography would claim that 3% of English words must be acquired as sight vocabulary. However, skillful reading and/or writing also depends upon a deep and thorough acquisition of grapheme-phoneme relationships, word analysis skills, and a schematic rationale which spelling generalizations can provide. While hearing or memorizing such generalizations does not make a skillful decoder, generalizations are useful if they can be utilized with applicable words.

I maintain that an explicit awareness of these different organizing principles not only can, but should be taught particularly to adult ESL students who can use their analytical capabilities to understand the underlying system of English spelling in their acquisition of English literacy. Furthermore, contrastive analysis suggests that a conscious awareness of the phonemic and/or morphophonemic similarities and differences between L1 and L2 can be utilized in the acquisition of English orthography.

As the position has been taken that English orthography can be taught, a rationale must be developed for teaching ESL phonics in a way that also utilizes transferable L1 skills.

A Rationale for Teaching Phonics

Phonics and spelling should not be considered as ends in and of themselves, but neither can the acquisition of underlying principles be taken for granted and/or ignored. Anyone with limited literacy must attain a mechanical command of English in order to cope receptively and productively with written language. Consequently, the development of a rationale for teaching English phonics must consider what phoneme-grapheme correspondences the ESL student needs to learn in English, while also taking into account any L1 literacy skills and analytical capabilities the individual can utilize in the process.

Receptive uses of written English are premised upon a command of the English alphabet. For example, most young adult Mexican ESL students have a visual familiarity with the alphabet. However, many have not mastered the alphabetic sequence. This skill is not difficult to acquire and is frequently utilized in highly literate technological societies for it enables an individual to access any information organized alphabetically such as in a phone book, a dictionary, or an index.

While the basic form of the letters and the alphabet remain the same in most languages using the Roman alphabet, each language has its own names for the letters. Mastery of the English names for the alphabet letters (and the numbers) enables the ESL student to spell his name or any other word out loud if needed. In addition, and perhaps more importantly, a command of the English names of the alphabet letters and an understanding of the phonological clues inherent in the letter names provides some of the phonemic awareness necessary for reading and writing.

The simplest productive uses of written English include the ability to copy any written text (such as one's address) or to write down any information that is spelled out loud, be it the name of a customer, a word the individual does not understand, or whatever. Yet the ESL student also needs to utilize the alphabet in order to write words - and ultimately texts. This productive capability to write the alphabet also reinforces receptive acuity, facilitating the development of speed and accuracy of letter perception - both fundamental aspects of reading and writing.

The fundamental difference between receptive and productive uses of language is that "Reading is from the unknown via the context to the known. Spelling is from the known to the unknown" (Peters 1967:7). When a reader sees a word, he can have a choice of three approaches: he can try to read it by sounding it out utilizing grapheme-phoneme correspondences, he can recognize it by sight either as a whole or by seeing the morphological relations in the lexical item, or he can use a combination of these approaches and perhaps also be assisted by the context. According to Cordts,

Phonics may be said to function effectively in word perception in reading when it enables the reader to come so close to the word's identity that with the aid of the context he can guess the word. (1965:14)

On the other hand, the writer must be able to convert heard phonemes into unknown graphemes in order to spell a word. In this process he can use phonics generalizations he has learned or simply write the words from memory but context is of little assistance. Therefore, phonics plays a more important role in spelling than in reading, for phonics assists an individual in writing down the sounds he hears. Without phonics he would simply have to rely heavily on memorization.

>From the perspective of both reading and writing, phonics instruction can be crucial to any individual with emergent ESL literacy for English is an alphabetic language in which there are consistent, although not entirely predictable, relationships between letters and sounds. When these relationships are learned, many of the words that the ESL student has in his spoken language become accessible when seen in print and he (like the young child learning to read) can be said to have broken the code.

The ESL student with limited L1 literacy in a language such as Spanish knows the Spanish names of the alphabet letters which provide phonological clues enabling him to sound out most Spanish words. Yet he must master the phoneme-grapheme relationships in English, particularly where these differ from Spanish - as with vowels. While many of the discrete sounds in Spanish are similar to those in English, an understanding of the differences is a prerequisite to transferring knowledge about phoneme-grapheme relationships from L1 to L2.

If a Mexican ESL student transfers what he knows of phoneme-grapheme relationships directly from Spanish to English, he will be able to write most of the English consonants correctly. Most English consonant letters have only one sound and a direct grapheme-phoneme relationship exists with the letters b, d, h, j, k, l, m, n, p, r, w, and initial y. Rather than denoting more precise

allophonic distinctions (as might be made regarding the different pronunciations of sounds such as r or d), using more general categories, the following transfer errors are frequent: the English v is often written as b (the Spanish pronunciation of b and v are identical); the English h is often written with a j; and y is written with ll. The ESL student must learn that some consonants represent more than one phoneme and understand where unsounded consonants occur in English orthography. The limited number of English two- and three-letter consonant blends can usually be sounded out in reading and writing. However, on the whole English consonants exhibit close phoneme-grapheme relationships. These are often similar to those in Spanish, but exceptions follow definite patterns which can be learned.

English vowels, on the other hand, can create three major difficulties for many an ESL student. The written form an ESL student associates with vowel sound is often not the same in L1 and L2, an English grapheme can represent more than one phoneme, and an English vowel sound can be written in more than one way.

The first problem has already been referred to in the discussion of the alphabet. In many languages, including Spanish and English, the name of the vowel letter provides a phonological clue. Therefore, while the names of the vowels letters in Spanish are useful in mastering that orthography, the names of the English vowels only match the English long vowel sounds. A command of the English vowel letter names aids in mastering long vowels sounds, which are usually written utilizing two vowel letters (Make the train stay). The short vowel sounds (cat) are usually written with one vowel letter. There are other consistent vowel patterns which occur less frequently. R affects vowel sounds. Vowel phonemes can be written in more than one way (all - taught - ra w). Diphthongs have alternate spellings (noisy bo y). The weak unstressed vowel SCHWA sound can be represented by each of the vowel letters (bedlam, beaten, beautiful, beckon). One grapheme can represent more than one phoneme (go od fo od).

The spelling of English homophones can be learned in relation to other words (wood - would,

could, should). If homophones involve verbs, relationships can be seen with the stem (throne - throw, thrown). While the etymology of a word often determines its spelling, individuals without such background knowledge of foreign languages (such as most of the target Mexican ESL students) may simply have to learn how to spell homophones. Homographs can also confuse, as in the different pronunciations of the noun use /-s/ and verb use /-z/.

The considerable variability, particularly in the sound of vowels and vowel combinations in English, increases the difficulty of becoming literate in the language. However, the spelling of root words or unbound morphemes in English is much more regular than often thought. Major and secondary patterns prevail whereas the tiny number of exceptions often follow patterns based upon their roots.

An understanding of English phonics facilitates literacy acquisition by the ESL student, for a sufficiently large number of English words follow primary or secondary patterns. Phonics is also related to a utilization of cognates, particularly if L1 and L2 are related. The Mexican ESL student can incorporate hundreds of Spanish-English cognates into his spoken and written vocabulary if he understands basic conversion rules based on phonics principles. Cognates with direct transfer have identical spellings, although consonants must sometimes be doubled after short vowel sounds (posible > possible). Cognates with indirect transfer have the same meaning, but a slightly modified orthography following regular conversion rules involving the initial and final sounds in nouns and adjectives, suffixes, infinitival endings as well as consistent consonant changes. False cognates also exist, which orthographically look like cognates although spelling variations may occur. However, the disparate meanings of false cognates have to be learned to prevent misunderstandings both in written and spoken language, as with the Spanish word embarazada, which in English means pregnant, not embarrassed.

Since even low literacy Mexicans can spell most Spanish words correctly due to the close phoneme-grapheme relationships, the Mexican ESL student can be assisted in orthography (as well

as vocabulary development) if he has some understanding of direct cognates, the orthographic differences between Spanish and English roots and affixes in cognates of indirect transfer, and false cognates. If a student masters regular conversion patterns (for English/Spanish see Chaillé 1982:55-63), he can more readily learn how to read and/or spell many English words correctly. Regular morphemic rules, such as those governing the formation of plurals and the simple past can also be consciously learned.

In conclusion, the optimal approach to teaching English orthography capitalizes upon the student's knowledge of the alphabet and his understanding of grapheme-phoneme relationships in L1. This information cannot be ignored for if the differences between the two languages are not explained, the ESL student may come to think that English spelling is totally arbitrary and may believe that he has to learn to read and write words one by one. However, the phonics approach enables the ESL student to make use of the phoneme-grapheme relationships that transfer directly (as with many consonants), while making adjustment when these are expressed differently (as with vowels). If an ESL student has a larger spoken than written L2 vocabulary, the former can be utilized in the teaching of word families which enable a student to see how phonics generalizations can be applied to a number of words. Principles of English relatedness spelling can also be learned.

Finally, adult students' analytical capabilities make it possible for them to transfer information and grasp generalizations in a way that might be more difficult for children lacking literacy in any language. Of course, a limited number of very irregular words still have to be learned by heart.

This combination of L1/L2 capabilities and L2 spelling principles provides the rationale for explicit instruction in graphological literacy. It can be concluded that an appropriate syllabus would include instruction in basic alphabet skills, phonics, lexical relatedness spelling, and contrastive analysis while utilizing the analytical capabilities of the ESL student.

Phonics and Spelling Instruction in the Adult Education Intermediate ESL Literacy Class

A teacher/research project on the usefulness of incorporating phonics and spelling instruction into the curriculum of an adult education open-entry open-exit intermediate ESL class took place in Santa Barbara, California, from September 1991 to March 1993. The class met two nights a week for two hours per session and was comprised mainly of limited L1/L2 literacy Mexican immigrant workers. The qualitative study described classroom procedures and utilized portfolio analysis to examine how phonics approach affected ESL students' ability to spell and confidence in their ability to write text (Jones 1995).

It was posited that if the teacher had a command of the common patterns of English spelling, phonics could be incorporated as needed throughout instruction. Spelling rules were simplified in whatever way possible in order to make them comprehensible to, yet useful for limited L1/L2 literacy ESL students. While such simplification may be taken by some to be unacademic, many native English speakers, when asked, will confess that they say "I before E except after C" to themselves before writing a word in which the rule is applicable.

It is relatively easy to teach phoneme-grapheme relationships of consonants as most consonant sounds are written only one way and the same alphabet letters are often used in Ll and L2. Therefore emphasis was placed upon basic spelling rules governing long and short vowel sounds, as well as spelling changes required by adding suffixes to nouns, adjectives, verbs, and adverbs.

Short vowel sounds are almost always written with only one vowel. These can be related to the words (and drawings by the teacher) of apple, elephant, Indian, octopus, umbrella.

Long vowels sounds can be written in a number of ways. In one-syllable words long vowel sounds are usually written with two alphabet letters. Two patterns are the most common. First of all, if there is an E at the end of the word, the first vowel letter usually has the long vowel sound: E at

the end and the vowel says its name. This rule works with all vowels. Secondly, if there is a pair of vowel letters (and these are constant for each vowel), the first one letter is usually pronounced with the long vowel sound: When 2 vowels go walking the first one does the talking.

There are obviously exceptions to these rules for long and short vowel sounds. Clearly 3% of English words that have to be learned one at a time, yet many other words follow secondary spelling patterns and can be learned as part of "word families" such as bold, cold, mold, told.

In addition to the phoneme-grapheme correspondence of vowels, the doubling final consonants before adding suffixes must be learned. In the speech of some NNS immigrants no clear distinction between long and short vowel sounds is heard, especially if the students have learned English in the work place rather than in a classroom where their pronunciation would have been corrected. Consequently such individuals have difficulty with a rule governing the doubling of consonants is based upon pronunciation alone. A simple but useful rule which works most of the time regarding the doubling of a final consonant of an accented final syllable is 1, 2, 3, -ing. This means if you start counting at the first vowel of the last syllable and you get to the end of the word before you get to 3, you must double the final consonant before adding -ing.

sto(1)p(2)p(3) -> stopping

ho(1)n(2)k(3) -> honking

ste(1)e(2)r(3) -> steering

These rules with examples can be summarized as follows:2

English Spelling Rules

Spelling: It is easy to spell words in some languages, because you just write down the sounds that you hear. English spelling is harder, especially because the same sound can be written in different ways. Here are some rules to help you spell many English words. They do not work all of the time,

but they work a lot of the time.

Consonants: Most consonants always have the same sound and you write them in the same way. If you hear m, you write m. Sometimes when two consonants are together, the sound changes. Then you have to learn how to write th in words like the and with.

Vowels: The hardest thing to write in English are the vowels. Most vowel sounds are long or short. Short vowels sounds can only be written one way. Long vowel sounds can be written different ways. Here are some:

. .

Spelling rules:

1. Short Vowel Sounds = 1 vowel: If the words has one vowel, it will sound like apple, elephant, Indian, octopus, umbrella.

2. Long Vowel Sounds = usually 2 vowels:

* E at the end and the vowel says its name: make, these, bike, rope, cute

* When 2 vowels go walking, the first one does the talking: rain, cream, soap, suit, [right]

* Word ends with Y:

Y sounds like I if final syllable is accented: my, fry, reply

Y sounds like E if final syllable is not accented: baby, happy, ready

* I before E except after C or when sounded like A in neighbor and weight: believe, receive

3. Suffixes: -ing, -ed, -er, -est: 1,2,3 Rule

Start counting the first vowel in the last syllable if it is accented. Count to three.

* If there are only 2 letters, you must double the last letter: sit > sitting (qu = l letter so quit > quitting)

* Never double w, x, y: grow > growing, fix > fixing, fry > frying

* If the word ends in e, drop the e and add -ing, -er, -est: bake > baking, bake > baker

* If there are 2 vowels together you get to 3 and don't add anything: rain > raining, sleep > sleeping

4. Suffixes: -s or -es: plural nouns or third person singular present tense

* Only add -es after -ss, -zz, -sh, -(t)ch, -(d)ge: busses, buzzes, wishes, witches, coaches, judges

The spelling rules summarized on the above chart became the basis of teaching the spelling of specific words and how to sound out unknown words while reading or writing. Three steps can be identified in this process and were incorporated into the teaching of the pilot adult education open-entry open-exit intermediate ESL class:

1. Phoneme-grapheme relationships (including the differences between Spanish and English) and the basic rules for American spelling were taught through choral spelling utilizing Look Again Pictures (Olsen 1984).

2. Irregular verb tests were given to evaluate mastery of the tenses and to ascertain the extent to which students could utilize spelling rules with a given vocabulary. Students were challenged to improve upon their own past performance rather than being judged against a pre-established norm.

3. Guided compositions were written as part of teacher-generated literacy lessons, in which key vocabulary and grammatical structures were provided in a pre-writing activity and/or sample essay (modeled after Davidson and Blot 1994) to insure success.

Phonics/spelling instruction was based upon the spelling chart. While the chart was specifically

discussed as needed throughout the semester, every effort was made to incorporate spelling instruction into content-based lessons to avoid the kill and drill approach. For example, the Look Again Pictures (Olsen, 1984) show two slightly different pictures of every day scenes from the home, workplace, and society. The pictures are helpful in teaching vocabulary which is often not known by immigrants who may only use English in the workplace, but their native language at home. The class worked together orally to identify the differences in pictures and to articulate these in a grammatically correct sentence. For example, one student might say "In the top picture the frying pan is bigger, but in the bottom picture the frying pan is smaller".

The full class participated in chorally spelling key words which the teacher wrote on the overhead projector or the chalkboard. Most of these words could be spelled utilizing the rules on the chart. If the majority of the students called out the correct letter, it was written down. If two letters are called out in the place of one, this provided an opportunity to discuss which one is correct. Common errors included saying the wrong vowel letter for a long vowel sound and failing to double consonants before adding suffixes. It should be noted that a word such as small has the aw sound, which is not on the chart, but might occur on an expanded version, as small can be shown to include a family of all, ball, call, fall, small, tall. Occasionally the spelling of one word was followed by a discussion of other words with a similar spelling or a discussion of how one phoneme can be spelled in more than one way. This was also be used as a means of vocabulary development. Spelling instruction became a meaningful activity rather than drill and kill exercise done in isolation from actual language use.

Step two focused upon utilizing the above rules to learn to spell specific and useful vocabulary. Many low literacy immigrants, who have learned English outside the classroom, tend to speak in the present tense. Therefore each student was given a list of the 98 most common irregular verbs. Weekly verb tests were devised in which the infinite was given and the third person present, present continuous, simple past, and present perfect had to be written by the student. Students were responsible each week for three new verbs and for all of the verbs studied previously. The

weekly test was designed to challenge students with different levels of literacy and was appropriate for both old and new students if utilized in the following way. A new student or a very limited literacy student might first just copy from his verb list and concentrate on the present (adding -s or -es). Then he worked on the present continuous (making the necessary changes in the stem, such as doubling the final consonant before adding the suffix -ing), next the simple past, and finally the present perfect. In an open-entry open-exit class emphasis is upon individual growth rather than judging all students in accordance to a pre-established norm. Therefore students tried on each verb test to improve upon their previous performance rather than simply trying for a perfect paper. If Miguel missed twenty last week and missed fifteen this week, he had improved, whereas if Maria missed two last week and missed four this week, she needed to study more and had no reason to value her performance over that of Miguel.

Step three involved guided compositions of increasing complexity. An early lesson might be a self-description. The basic vocabulary would be given in the prewriting assignment, such as chart of articles of clothing and a list of colors. Then a list of questions could be given such as "What is your name? Where are you from? How old are you? How much do you weigh? What are you wearing?" A sample essay would sequentially answer these questions, incorporating target vocabulary in grammatically correct sentences. With this method each student could write a paragraph of text. Some students might simply plug in information about themselves into the essay, but others could use the questions as a point of departure for an original essay. The crucial factor was that everyone would succeed and with time students would try to include vocabulary words of their own and thus attempt to sound out words and apply spelling rules.

Portfolio analysis judging student writing holistically indicated that all students progressed in their ability to spell and particularly in their willingness to write essays. The open-entry open-exit policy precluded qualitative analysis including pre- and post-testing. While ideally the pilot class would be compared with a control group, there was only one adult education class in the community with this level of literacy, educational background, and ethnicity. However, portfolio analysis suggests

that the incorporation of the phonics approach into adult ESL literacy programs deserves careful consideration.

Conclusions

As a teacher/researcher is involved in both theory and practice, it is appropriate to consider the implications of this theoretical discussion of phonics and the related research project for possible further research.

>From a research perspective, theoretical discussions of literacy can be refined and enriched through a greater understanding of how basic literacy is acquired in the classroom. The issues raised regarding the incorporation of phonics in the adult ESL literacy classroom have received little attention in the literature and/or presentations at recent TESOL conventions where the focus has been largely upon functional literacy and to a lesser extent upon critical thinking. This trend may stem in part from the fact that most adult ESL research is done with more literate foreign students in American and British universities, who have mastered the basics of graphological literacy in order to pass the TOEFL test or its equivalent. However, more research needs to be done on basic literacy instruction for a much larger group of ESL students - young limited literacy adults who migrate world-wide from less developed countries to more industrialized and technological societies because of economic necessity.

Research into the extent to which the inclusion of phonics in the curriculum would affect the acquisition of ESL literacy may be more useful if there were a more viable dialectical relationship between theory and practice. Theoretical linguistic studies of morphophonemics, applied linguistic considerations of L2 language acquisition, and socio-linguistic research can all be related directly to the practice of teaching in the classroom. Such awareness would move the focus from what to do in the classroom and how to a consideration of why something should be done and how this

interrelates with other educational objectives. Theory is not irrelevant - has phonics been ignored in ESL instruction because the applicability of theoretical principles have not been understood?

This discussion of phonics and the related research project also has implications for those involved in teacher education. Teacher/researcher projects can provide a basis for raising awareness of theoretical issues in a systematic and principled way. If teachers and teacher trainers come to understand the dialectical relationship between theoretical morphophonemics and teaching spelling in the classroom, theory will gain more relevance and provide a basis for analyzing what is done in the classroom.

As orality and literacy lie on a continuum, L2 literacy can never be considered in isolation from L2 oral communicative competence. L2 literacy is also influenced by competencies in L1, so contrastive analysis could help determine what, if anything, can be transferred between the two languages. In the research project most of the young Mexican adults, even those with limited Spanish literacy, had mastered the L1 grapheme-phoneme relationships, which could be transferred to L2 if the orthographic differences between the two languages was understood. The many Latinate cognates facilitated English vocabulary development and spelling once an understanding of major L1/L2 differences was achieved. Basic ESL literacy acquisition was facilitated by the print-rich California environment.

In contrast, if L1 has no widely used written form (as is the case with many of the regional languages in developing countries) and/or if L1 illiteracy is widespread, individuals have little to transfer to L2 and may also lack general exposure to the written form of L1 and/or L2, as is the case of the Berbers learning Arabic in Morocco (Wagner 1994). While teaching grapheme-phoneme correspondences has been shown to be an integral part of instruction in graphological literacy, the emphasis would be dependent upon the closeness of the grapheme-phoneme relationships in the target language, any previously learned languages, and the correspondences between them. The stress placed upon spelling is in large part determined by the closeness of the grapheme-phoneme

correspondences. The weaker the relationship, the greater the attention that must be given to spelling.

The incorporation of phonics in adult ESL literacy instruction appeared to be sound in principle and workable in practice, but the limited teacher/researcher field work did not allow for the consideration of a number of issues relevant to a population underserved by research not only in the United States, but throughout the world. Research into the use of phonics in the development of emergent L2 literacy in immigrants could include a consideration of variables such as parent's socio-economic status (SES), previous L1 education/literacy, age, gender, motivation, and appropriateness of approach for the given population including utilization of transferable skills from L1 to L2.

Basic literacy acquisition could also be considered from the vantage of the affective domain, for the quality of the L1/L2 educational experience can influence an individual's perception of his ability to learn and his self-confidence in his ability to become literate. How decisive is the utilization of phonics in developing a student's ability to crack the code and thus to become literate in L2? And does phonics help develop skills which will sustain literacy uses in the future?

Functional literacy research has indicated correlations between education and wage-earning capacity among native born Americans today (Kirsch et al. 1993), as well as between literacy rates and poverty rates worldwide (Galbraith 1994: 180-84). Lack of L2 literacy almost always seriously limits opportunities for job advancement and the concomitant increases in salary. If phonics provides a sound foundation for the emergence and retention of basic ESL literacy, to what extent could it be seen to influence the employment opportunities of limited literacy immigrants? Furthermore, while L2 literacy may not necessarily ensure a secure future, lack of literacy may well mean a more precarious one for the migrant adult.

Family literacy research has shown that parental literacy is a strong predictor of a child's

educational success and subsequent economic opportunity. Therefore the extent to which parents understand the basics of phonics and spelling may have an impact upon the extent to which they can help their children with homework, which often involves preparing for spelling tests and writing assignments. From this vantage a commitment of educational resources and funding to adult literacy instruction can be seen as an investment in the next generation. Most highly technological societies have some provision for the education of migrant children, but evidence of the positive impact of parental literacy on child literacy might encourage educational authorities to invest more in providing L2 literacy instruction for the numerous limited literacy immigrant adults throughout the world.

In conclusion, phonics instruction can help adult ESL students understand those visible marks on paper if they can transfer what they hear in sounds or phonemes into marks or graphemes on the page. It has been argued that although phonics have become an integral part of elementary school ESL instruction in the United States, phonics have not been emphasized in adult ESL education in the late twentieth century.

There are compelling reasons for integrating phonics into the adult education ESL curriculum. It has been shown that the grapheme-phoneme relationships in English are more regular than sometimes thought. Using the example of adult Mexican ESL students, it was shown that even those with limited L1/L2 literacy understood the basic phonics principles in Spanish. When they were taught differences in the grapheme-phoneme relationships between English and Spanish, the students could transfer what they knew in L1 to L2 facilitating the acquisition of English spelling among individuals who have little exposure to print on the job and do little reading in their leisure time.

An understanding of phonics is basic to literacy, for it enables an individual to spell and read. Spelling involves the ability to form words according to the accepted norm of a given language. While a misspelled word might well be understood by the reader, it positions the writer as less

literate, which among most individuals implies a value judgment. Therefore, an emphasis of teaching spelling is not just one of demanding conformity for the sake of conformity. Rather, correct spelling has socio-cultural value and is, therefore, empowering.

A grasp of phonics and the related ability to spell correctly should, however, never be seen as ends in and of themselves. What is needed, in Paulo Freire's words, is "the ability to understand what one reads and to write what one understands." While Freire is best known by some for his theory of conscientização, it is important to remember that he based his literacy program upon mastery of the basic phonemes of the Portuguese language. Finally, while critical and creative thinking are not totally dependent upon literacy, the inability to write down anything for one's own present or future purposes and the inability to read what others have written seriously limits an individual's access to knowledge and his ability to share his thoughts with others.

The interrelationship between the aspects of literacy can also be visualized as a Möbius strip. If the strip represents the topic under consideration, what is visible, important, or relevant may in one instance be more related to functional literacy and in another be closer to critical and/or creative thinking, but the ability to spell and/or read is inextricably intertwined with conveying ideas and/or information in written form.

The question should, therefore, no longer be whether to teach grapheme-phoneme correspondences to ESL students with limited L1/L2 literacy, but when and how this could be done most effectively making use of transferable knowledge from L1.

Footnotes

1. A test was devised to determine whether an ESL teacher could read a short list of words related by some principle and then recognize the word patterns, articulate the appropriate phonic generalizations, and identify exceptions. The focus was upon common spelling patterns such as

long and short vowel sounds and the orthographic changes generated by suffixes. Teachers were asked to explain in simple English why the words in each group were spelled the way they were and give the rule relevant to most of the words. If there were exceptions, the rules for these should also be given.

Test results of 83 NS and NNS ESL teachers in California and at the Institute of Education in London indicated that only elementary school teachers who worked in schools with strong phonics programs could quickly and with ease articulate what rules they would use to explain the words that followed the dominant pattern, what words were exceptions, and how these could be taught. Test and applicable rules are given in Appendix 1.

2. A more complete chart and discussion of spelling patterns can be found in Jones (1995).

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